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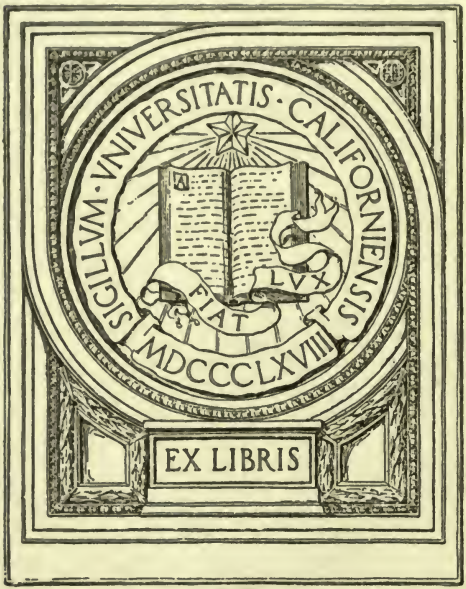

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PUBLICATION OF THE GRADUATE SCHOOL OF BUSINESS ADMINISTRATION, HARVARD UNIVERSITY

VOL. VII, NO. 2 CAMBRIDGE, MASS. JUNE, 1921

BULLETIN NO. 26
BUREAU OF BUSINESS RESEARCH

Operating Expenses in the Wholesale Grocery Business in 1920

PRICE $1.00

CAMBRIDGE
HARVARD UNIVERSITY PRESS
1921

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FOREWORD

This bulletin brings up to date the information on annual operating expenses that the Bureau has published since its study of the wholesale grocery business was begun in 1916. The standard accounting system which was published at that time in coöperation with the National Wholesale Grocers' Association has formed the basis for the collection of these data. For 1920, reports have been received from three hundred sixty-two wholesale grocers, a substantially larger number than in any one year heretofore. Fully as significant as the increase in the number of reports has been the improvement in their quality. In many cases firms that in previous years sent in statements so incomplete that they could not be used in the tabulations furnished excellent reports this year. Of the total number received only a small portion was too incomplete for inclusion in the tabulations. The increase in the number of reports and their completeness has made possible more detailed comparisons than in previous years.

The funds to cover the expenses of the investigation this year were provided by the National Wholesale Grocers' Association, and the Association has aided also by stimulating interest among its members.

Practically all the wholesale grocers in the United States were asked to coöperate by furnishing reports this year. The regular blanks were sent out to 2479 wholesale grocers. To a substantial number who did not reply to the first request for information a second circular was sent. The Bureau has thus undertaken to afford an opportunity for every wholesale grocer in the country to take part in this research, and it is believed that the results are typical of conditions in the trade.

Melvin T. Copeland,
Director.

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OPERATING EXPENSES IN THE WHOLESALE GROCERY BUSINESS IN 1920

INTRODUCTION

The statements from three hundred twenty-two wholesale grocers provided the data summarized in this bulletin. These firms were located in forty-five states and Canada. Their aggregate sales in 1920 were $643,949,000. The net sales of the individual firms ranged from $176,000 to $28,400,000; about one-half the firms had sales between $500,000 and $1,500,000.

As is shown in detail in the tables that follow, the common figure for total expense in the trade as a whole was 9 % of net sales; the district in which the ratio of total expense to net sales was lowest was the Cleveland Federal Reserve district, with a common figure of 8 %. In the Dallas Federal Reserve district the common figure for total expense was 10.6 % of net sales — the highest for any of the Federal Reserve districts. Grouping the firms in all the districts according to the volume of their net sales, it was found that the common figure for total expense was highest — 9.5 % — in the case of firms with sales less than $500,000, and the firms with sales exceeding $2,000,000 had a common figure for total expense of 9.3 % of net sales; the intermediary groups showed common figures for this item varying from 8.6 % to 8.9 %. In cities with a population less than 100,000 the common figure for total expense was 8.8 %; in cities with a population from 100,000 to 749,000, 9 %; whereas in cities with a population of 750,000 and over it was 11.3 %.

For average annual sales per salesman, which have a direct bearing on salesforce expense, the common figure for the country as a whole was $175,000 in 1920, varying from $142,000 in the St. Louis district to $210,000 in the Cleveland district. In

cities with a population of 750,000 and over, the average annual sales per salesman were $103,000, which is less than two-thirds the common figure for firms located in cities with less than 750,000 population. This apparently is one of the chief reasons why the total expense was higher in the large cities than in cities with less than 750,000 population.

Complete statements have been received annually for the last five years from forty-three firms. A comparison of the reports from these wholesalers showed that in 1916 the common figure for total expense was 10 % of net sales; in 1920 it was 9 %, which is less than in any of the other years. This probably reflects the unusual efforts that were made to reduce expenses during the depression of 1920.

The common figure for gross profit for the trade as a whole in 1920 was 8.5 % of net sales, varying from 7.1 % in the Cleveland district to 10.4 % in the Dallas district. The firms located in cities with a population less than 100,000 had a common figure for gross profit of 8.3 %; in cities with a population from 100,000 to 749,000, 8.5 %; and in cities with a population of 750,000 and over the common figure was 10.2 %. For the forty-three firms for which complete reports were available for five years, gross profit declined from 13.5 % of net sales in 1917 to 8.2 % in 1920.

The wholesale grocers from whom reports were received in the San Francisco Federal Reserve district showed a net profit in 1920 of 0.4 % of net sales. In all the other districts a net loss was shown by a majority of the firms. In the Boston and Richmond districts the common figure for net loss was 0.1 % of net sales; in the Philadelphia and Chicago districts it was 1.2 %.

In addition to the detailed explanation of these comparative figures on expenses and profits, this bulletin also includes data on stock-turn, cash discounts taken, returns and allowances, and financial figures from the balance sheets of the firms reporting.

VOLUME OF BUSINESS

The following table indicates the volume of business of the firms whose reports were used in the preparation of this bulletin. The firms have been grouped according to their volume of sales in 1920, and the number of firms in each group is indicated; for example, thirty-five firms were in the group that had net sales less than $500,000 in 1920. The large number of firms in the two groups with net sales between $500,000 and $1,499,000 is especially to be noted.

Net sales, as used in this tabulation and in all the other tabulations in this bulletin, is the amount that remains after deducting the following items from gross sales — returns and allowances to customers, prepaid freight and express collected from customers, and cash discounts taken by customers.

VOLUME OF BUSINESS IN 1920 — 322 FIRMS

Net Sales	Number of Firms
Less than $500,000	35
$500,000–999,000	96
$1,000,000–1,499,000	68
$1,500,000–1,999,000	37
$2,000,000 and over	86

OPERATING EXPENSES

The cost of doing business is indicated by the total expense. In accordance with the definitions established by the standard accounting system, the figures for total expense in these reports include not only the outlay for such items as advertising, outward freight, express, and cartage, insurance, and taxes, but also rent for office and warehouse whether owned or leased, a fair salary for the proprietor or partners, and interest both on borrowed money and on the net investment in the business. Definitions of what is included in each item are given in *Bulletin No. 8, Operating Accounts for Wholesale Grocers.*

In the following table are stated the lowest, highest, and common figures for each item of expense that appeared on the reports for 1920. The lowest figure in each case is the lowest that was shown by any one firm; of course, no firm showed the lowest figure for all the items. Similarly the highest figure in each case is the highest that was shown by any one firm for that item, even though the firm had a figure below the average for numerous other items. The common figure, as has been explained in previous bulletins, is the one around which the entire group tends to center.

Operating Expenses in the Wholesale Grocery Business in 1920 — 322 Firms

Net Sales = 100 %

	Lowest	Highest	Common
Total Salesforce	0.3 %	4.6 %	2.1 %
Advertising	..	1.1	0.05
Other Selling	0.01	1.6	0.05
Total Selling	0.5	5.0	2.2
Wages of Receiving and Shipping Force	0.1	2.7	1.1
Packing Cases and Wrappings	0.01	1.4	0.05
Outward Freight, Express, and Cartage	0.01	2.8	0.4
Total Receiving and Shipping	0.4	4.8	1.6
Executive Salaries (Including Buying)	0.1	4.0	0.9
Office Salaries	0.2	2.8	0.8
Office Supplies and Postage	0.02	0.8	0.2
Telephone and Telegraph	0.01	0.3	0.04
Credit and Collection	0.01	0.3	0.04
Other Buying and Management	0.01	0.7	0.1
Total Buying and Management	0.9	5.9	2.1
Rent	0.1	1.5	0.3
Heat, Light, and Power	0.01	0.4	0.05
Taxes (Except on buildings, income, and profits)	0.02	0.6	0.3
Insurance (Except on buildings)	0.02	0.4	0.2
Repairs of Equipment	0.01	0.6	0.05
Depreciation of Equipment	0.01	0.7	0.2
Total Interest	0.5	3.2	1.6
Total Fixed Charges and Upkeep	1.2	5.1	2.7
Miscellaneous	0.01	3.7	0.2
Losses from Bad Debts	0.01	2.5	0.2
Total Expense	5.0	17.4	9.0

This table indicates that the average cost of doing business in 1920 was 9 % of net sales. The largest items making up this total expense were salesforce expense, wages of receiving and shipping force, executive salaries, office salaries, and total interest, these five items together comprising more than two-thirds the total expense.

The common figures that are given in the preceding table and in the tables that follow are the figures that are likely to be most serviceable to the individual wholesale grocer in applying the results of this research to his own business. If he will put the percentages for the various items of expense in his own business beside the table on page 9, he can see immediately where his expenses may be tending to run above the average. The data given in the following pages will enable him to carry this comparison and analysis even further, thereby suggesting the points that deserve especial attention in seeking for means to reduce his cost of doing business.

In order to reveal differences in local conditions the reports have been grouped according to the Federal Reserve districts in which the firms are located. The common figure for some of the chief items of expense in each district is shown in the following table. At the beginning of the table the number of firms in each district from which reports were received is stated.

The common figure for total expense was lowest in the Cleveland district — 8 % of net sales — and highest in the Dallas district — 10.6 %.

Total salesforce expense also was lowest in the Cleveland district — 1.7 %; it was highest in the St. Louis and Kansas City districts — 2.5 %.

With the exception of the Boston, Philadelphia, and Cleveland districts, the common figures for wages of receiving and shipping force were practically the same in the various sections of the country. Outward freight, express, and cartage showed a variation from 0.2 % in the Minneapolis district to 0.9 % in the Boston district.

Executive salaries ranged from 0.7 % in the San Francisco district to 1.1 % in the Philadelphia and Atlanta districts.

Rent showed little variation in most districts. It was lowest — 0.2 % — in the Kansas City district, highest — 0.5 % — in the Philadelphia and Dallas districts, and either 0.3 % or 0.4 % in all the other districts.

In five districts the common figure for total interest was 1.5 % of net sales, ranging from 1.4 % in the Cleveland district to 2.3 % of net sales in the Minneapolis district.

Losses from bad debts were 0.1 % in three districts, 0.2 % in five districts, rising to 0.7 % in the Dallas district.

These comparisons of districts indicate many strong similarities between different districts, while at the same time some of the exceptional local conditions are reflected by individual items, such as losses from bad debts in the Dallas district.

Operating Expenses in the Wholesale Grocery

Net Sales = 100 %

Number of Firms	Boston 19	New York 23	Philadelphia 14
Total Salesforce	1.8 %	2.1 %	1.8 %
Advertising	0.05	0.05	0.06
Other Selling	0.05	0.06	0.01
Total Selling	1.9	2.2	1.9
Wages of Receiving and Shipping Force	1.4	1.1	1.5
Packing Cases and Wrappings	0.05	0.09	0.03
Outward Freight, Express, and Cartage	0.9	0.3	0.5
Total Receiving and Shipping	2.4	1.5	2.0
Executive Salaries (Including Buying)	1.0	1.0	1.1
Office Salaries	0.6	0.7	0.8
Office Supplies and Postage	0.2	0.2	0.1
Telephone and Telegraph	0.04	0.03	0.04
Credit and Collection	0.02	0.03	0.03
Other Buying and Management	0.08	0.1	0.06
Total Buying and Management	2.0	2.1	2.2
Rent	0.4	0.4	0.5
Heat, Light, and Power	0.06	0.07	0.06
Taxes (Except on buildings, income, and profits)	0.3	0.1	0.1
Insurance (Except on buildings)	0.2	0.1	0.2
Repairs of Equipment	0.07	0.02	0.11
Depreciation of Equipment	0.1	0.2	0.3
Total Interest	1.5	1.5	1.5
Total Fixed Charges and Upkeep	2.6	2.4	2.8
Miscellaneous	0.2	0.1	0.6
Losses from Bad Debts	0.2	0.1	0.2
Total Expense	9.3	8.4	9.7

Business in 1920 by Federal Reserve Districts

Net Sales = 100 %

Cleveland 30	Richmond 27	Atlanta 21	Chicago 58	St. Louis 33	Minne-apolis 23	Kansas City 35	Dallas 11	San Francisco 24
1.7 %	2.0 %	1.9 %	1.9 %	2.5 %	2.4 %	2.5 %	2.1 %	1.9 %
0.04	0.03	0.03	0.04	0.05	0.06	0.08	0.03	0.05
0.03	0.04	0.05	0.05	0.06	0.09	0.04	0.04	0.07
1.8	2.1	2.0	2.0	2.6	2.6	2.7	2.2	2.0
1.2	1.0	1.0	1.1	1.0	1.0	1.1	1.1	1.1
0.05	0.05	0.02	0.05	0.06	0.06	0.03	0.01	0.03
0.4	0.3	0.4	0.4	0.3	0.2	0.4	0.4	0.5
1.7	1.4	1.5	1.6	1.4	1.3	1.6	1.5	1.6
0.8	0.8	1.1	0.9	0.9	0.9	0.8	0.9	0.7
0.7	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8
0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.03	0.04	0.04	0.04	0.05	0.05	0.04	0.04	0.06
0.02	0.06	0.05	0.05	0.04	0.04	0.03	0.04	0.03
0.03	0.1	0.1	0.1	0.2	0.3	0.1	0.2	0.2
1.8	1.9	2.3	2.1	2.3	2.3	2.0	2.2	2.0
0.3	0.3	0.4	0.3	0.3	0.4	0.2	0.5	0.4
0.05	0.04	0.04	0.06	0.04	0.07	0.05	0.04	0.03
0.2	0.3	0.3	0.2	0.3	0.4	0.4	0.3	0.4
0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1
0.04	0.05	0.08	0.06	0.07	0.07	0.05	0.02	0.03
0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.1
1.4	1.6	1.6	1.5	1.5	2.3	1.9	2.2	1.6
2.4	2.7	2.7	2.4	2.6	3.5	3.0	3.6	2.7
0.2	0.3	0.4	0.2	0.2	0.3	0.2	0.4	0.2
0.1	0.2	0.3	0.1	0.4	0.3	0.2	0.7	0.2
8.0	8.6	9.2	8.4	9.5	10.3	9.7	10.6	8.7

Inquiries frequently have been received regarding operating expenses of wholesale grocers in small cities as compared with the expenses of firms located in large cities. Consequently, this year the firms have been grouped according to the size of the towns and cities in which they are located. The common figures for the more important items of expense for the firms in each of these groups are shown in the following table. The population figures of the 1920 census were used.

Operating Expenses in 1920 According to Size of Cities

Net Sales = 100 %

	Population less than 100,000	100,000–749,000	750,000 and over
Number of Firms	247	50	25
Total Salesforce	2.0 %	2.2 %	3.0 %
Wages of Receiving and Shipping Force	1.1	1.1	1.1
Outward Freight, Express, and Cartage	0.3	0.5	0.8
Executive Salaries	0.9	0.7	1.2
Office Salaries	0.7	0.9	1.0
Total Buying and Management	2.0	2.0	2.7
Rent	0.3	0.4	0.5
Total Interest	1.7	1.5	1.3
Total Fixed Charges and Upkeep	2.8	2.5	2.3
Losses from Bad Debts	0.2	0.2	0.3
Total Expense	8.8	9.0	11.3

These figures indicate that the average cost of doing business generally was higher in the large cities. Although total interest was less for the firms in the large cities, salesforce expense, outward freight, express, and cartage, and executive salaries were substantially higher in percentage of net sales.

Another grouping in which interest frequently has been shown by members of the trade is according to the volume of sales. For this purpose the firms from which reports were received have been grouped into five classes, and the common figures for the important items of expense for the firms in each class are shown in the following table.

Operating Expenses in 1920 According to Volume of Sales

Net Sales = 100 %

	Net Sales less than $500,000	$500,000–999,000	$1,000,000–1,499,000	$1,500,000–1,999,000	$2,000,000 and over
Number of Firms	35	96	68	37	86
Total Salesforce....	2.4 %	2.1 %	2.0 %	2.0 %	2.1 %
Wages of Receiving and Shipping Force	1.2	1.0	1.1	1.1	1.1
Outward Freight, Express, and Cartage	0.4	0.4	0.3	0.3	0.5
Executive Salaries..	1.3	1.0	0.9	0.7	0.7
Office Salaries.....	0.8	0.7	0.8	0.7	0.8
Total Buying and Management	2.4	2.0	2.1	1.8	2.1
Rent.....	0.4	0.3	0.3	0.4	0.3
Total Interest.....	1.3	1.7	1.5	1.5	1.6
Total Fixed Charges and Upkeep.....	2.3	2.9	2.5	2.5	2.7
Losses from Bad Debts.....	0.2	0.2	0.1	0.1	0.2
Total Expense.....	9.5	8.9	8.6	8.6	9.3

The common figure for the cost of doing business was lowest for the firms with annual sales between $1,000,000 and $1,999,000. These two groups showed a common figure for total expense of 8.6 % of net sales. Total expense was highest —9.5 %—for the group of firms with sales less than $500,000, but it also is to be noted that the firms with sales of $2,000,000 and over showed a common figure for total expense of 9.3 %.

In comparing the individual items, salesforce expense was highest in the group of firms with sales less than $500,000. Executive salaries also were highest in this group, and total interest lowest. A comparison of the figures for the firms with annual sales of $2,000,000 and over with the figures for the two groups next lower in volume of sales indicates that the higher total expense for the firms with the largest volume

of business can not be attributed to any one or two items; the expenses of the last group tended to run slightly higher for numerous items, making an aggregate difference of 0.7 % of net sales in total expense.

The last five years covered a period of abnormally severe business changes; first a period of expansion, then war-time control, then a period of general business activity in 1919, and the severe drop in prices and depression in 1920. The changes that have taken place in operating expenses in the wholesale grocery trade during this period are of unusual interest. The Bureau has had complete reports from forty-three firms for this entire period. The average net sales per firm for this group were as follows: 1916, $1,363,000; 1917, $1,692,000; 1918, $1,907,000; 1919, $2,314,000; 1920, $2,606,000. The annual common figures for the more important items of expense for these forty-three firms are shown in the following table.

Operating Expenses, 1916–1920 — 43 Firms

Net Sales = 100 %

	1916	1917	1918	1919	1920
Total Salesforce	2.7 %	2.4 %	2.5 %	2.2 %	2.2 %
Wages of Receiving and Shipping Force	1.1	1.0	1.1	1.1	1.1
Outward Freight, Express, and Cartage	0.5	0.4	0.4	0.4	0.4
Executive Salaries	0.8	0.7	0.8	0.8	0.7
Office Salaries	0.7	0.7	0.7	0.8	0.7
Total Buying and Management	2.1	2.1	1.9	2.0	1.8
Rent	0.3	0.3	0.3	0.3	0.3
Total Interest	1.6	1.5	1.5	1.7	1.6
Total Fixed Charges and Upkeep	2.6	2.5	2.4	2.6	2.5
Losses from Bad Debts	0.3	0.2	0.2	0.1	0.2
Total Expense	10.0	9.3	9.4	9.3	9.0

In 1916, the common figure for total expense for these firms was 10 %; in 1920, it was 9 %. A comparison of the individual items indicates that while prices varied greatly during this period the percentage of expense to sales tended to decline slightly in the case of a number of items. The lower percentage of total expense in 1920 was due to a number of small differences in the individual items and not to a large difference in any single item.

GROSS AND NET PROFIT (OR LOSS)

Gross profit, according to the standard accounting system, is determined by deducting net cost of merchandise sold from net sales. It is the amount out of which expenses must be paid and in normal years a net profit obtained. Net profit is the amount that remains after deducting total expense from gross profit. If total expense is greater than gross profit, the result is a net loss.

The highest, lowest, and common figures for gross profit and for net profit or loss in the three hundred twenty-two firms from which reports were received in 1920 were as follows:

Gross and Net Profit (or Loss) in 1920
322 Firms

Net Sales = 100 %

Highest	Lowest	Common
Gross Profit 14.2 %	*Gross Loss 3.0 %*	Gross Profit 8.5 %
Net Profit 4.3	*Net Loss 9.9*	*Net Loss 0.5*

Although the percentage of total expense to net sales, as previously indicated, was generally lower in 1920 than in other years, nevertheless, the severe slump in prices reduced the gross profit of many firms to a point below total expense. The common figure for net loss shown by the wholesale grocers reporting to the Bureau for 1920 was 0.5 % of net sales.

The common figures for gross profit and net profit or loss in the several Federal Reserve districts were as follows:

Gross and Net Profit (or Loss) in 1920 by Federal Reserve Districts

Net Sales = 100 %

District	Gross Profit	Net Profit or Loss
Boston	9.2 %	*Loss 0.1 %*
New York	7.7	*Loss 0.7*
Philadelphia	8.5	*Loss 1.2*
Cleveland	7.1	*Loss 0.9*
Richmond	8.5	*Loss 0.1*
Atlanta	8.6	*Loss 0.6*
Chicago	7.2	*Loss 1.2*
St. Louis	9.0	*Loss 0.5*
Minneapolis	9.8	*Loss 0.5*
Kansas City	9.3	*Loss 0.4*
Dallas	10.4	*Loss 0.2*
San Francisco	9.1	Profit 0.4

The San Francisco district was the only one in which the wholesale grocers showed an average net profit in 1920. In the other districts the net loss varied from 0.1 % of net sales in the Boston and Richmond districts to 1.2 % in the Philadelphia and Chicago districts.

The common figure for gross profit for wholesale grocers located in cities with a population less than 100,000 was 8.3 % of net sales in 1920 and for net loss 0.5 %; in cities with a population from 100,000 to 749,000 gross profit was 8.5 % and net loss 0.5 %; in the cities with a population of 750,000 and over, the common figure for gross profit was 10.2 % and for net loss 1.1 % of net sales.

The firms with annual sales less than $500,000, as was previously pointed out, had the highest common figure for total expense. This group also showed the highest common figure for net loss — 1 % of net sales. The common figures for gross profit and for net loss of each group of firms, classified according to the volume of sales, were as follows:

Gross Profit and Net Loss in 1920 According to Volume of Sales

Net Sales = 100 %

Volume of Net Sales	Gross Profit	Net Loss
Less than $500,000	8.5 %	*1.0 %*
$500,000–999,000	8.4	*0.5*
$1,000,000–1,499,000	8.2	*0.4*
$1,500,000–1,999,000	8.2	*0.4*
$2,000,000 and over	8.9	*0.4*

Taking the figures for the forty-three firms from which complete reports have been received for the last five years, a marked decline in the percentage of gross profit is indicated. In 1916, the year in which total expense was highest, the common figure for gross profit was 13.3 % of net sales; in 1920 the common figure for gross profit was 8.2 %. The common figure for these firms was highest in 1917 — 13.5 % — and the net profit in that year was 4.2 % of net sales as compared with the common figure for net loss of 0.8 % of net sales in 1920.

Gross and Net Profit (or Loss), 1916–1920
43 Firms

Net Sales = 100 %

Year	Gross Profit	Net Profit or Loss
1916	13.3 %	Profit 3.3%
1917	13.5	Profit 4.2
1918	11.5	Profit 2.1
1919	11.5	Profit 2.2
1920	8.2	*Loss 0.8*

STOCK–TURN

The lowest rate of stock-turn shown on the reports received for the year 1920 was 2.5 times; the highest was 15.6 times and the common figure 6.1 times. The rate of stock-turn is determined by dividing the average inventory into net cost of

the merchandise sold. Since inventories are taken at cost, the average inventory must be divided into the cost of the goods sold rather than into the sales. As has been explained in previous bulletins, a better figure for the rate of stock-turn would be obtained if monthly inventory figures were available. Since they are not available, however, it is necessary to use the average of the inventories at the beginning and end of the year. For purposes of comparison the results are assumed to be fairly comparable.

The common figures for the rate of stock-turn in the Federal Reserve districts were as follows:

Rate of Stock-Turn in 1920 by Federal Reserve Districts

District	Rate of Stock-turn	District	Rate of Stock-turn
Boston	6.1 times	Chicago	6.5 times
New York	6.1	St. Louis	6.8
Philadelphia	5.8	Minneapolis	5.3
Cleveland	6.1	Kansas City	5.4
Richmond	5.8	Dallas	6.7
Atlanta	6.9	San Francisco	6.2

The common figure for stock-turn of the wholesale grocers located in cities with less than 100,000 population was 6 times in 1920; in cities with a population from 100,000 to 749,000 it was 6.2 times; it also was 6.2 times in cities with a population of 750,000 and over.

The rate of stock-turn for the various groups of firms classified according to volume of sales was as follows:

Rate of Stock-Turn in 1920 According to Volume of Sales

Volume of Net Sales	Rate of Stock-turn
Less than $500,000	6.0 times
$500,000–999,000	5.7
$1,000,000–1,499,000	6.3
$1,500,000–1,999,000	6.1
$2,000,000 and over	6.5

A comparison of the figures for stock-turn given on page 20 with those published in the previous bulletins on the wholesale grocery trade indicates that the rate of stock-turn generally was higher in 1920 than in previous years for which figures have been collected. This is borne out by a comparison of the average rate of stock-turn for the forty-three firms from which complete reports have been received since 1916. For these firms the annual common figure for stock-turn has been as follows:

RATE OF STOCK-TURN, 1916–1920 — 43 FIRMS

1916	6.0 times
1917	5.9
1918	5.2
1919	5.0
1920	6.3

These figures suggest a tendency for the rate of stock-turn to slacken gradually on the rising market, the rate apparently being lowest in the year of highest prices and greatest business activity. The marked increase in the rate of stock-turn in 1920 reflects the decline in prices which resulted in curtailment of buying and unusual efforts to keep inventories at a low point.

While it obviously is not safe to draw hard and fast conclusions from the figures based on the reports from only forty-three firms, nevertheless, these figures, together with the others that the Bureau has obtained, suggest that it might well be advantageous for most wholesale grocers to maintain their rate of stock-turn at a high point in years of rising prices so that when a reaction occurs they will not have unusually large stocks on hand on which to take losses.

CASH DISCOUNTS

The cash discounts taken by wholesale grocers in 1920 averaged 1.5% of their purchases of merchandise at billed cost. These percentages were obtained from the figures on the profit and loss statements by dividing the entry for purchases at billed cost into the amount entered as cash discounts taken.

Cash Discounts in 1920

Percentage of Purchases	Number of Firms
Less than 1.0%	35
1.0–1.4	97
1.5–1.9	122
2.0 and over	24

RETURNS AND ALLOWANCES

The following table indicates the amount of merchandise returned by customers and the allowances granted to customers in 1920. The percentages are the percentages of returns and allowances to gross sales. The common figure for returns and allowances in 1920 was 1.5% of gross sales. To this table are also added figures for the firms from which reports were received both for 1919 and 1920, to enable a comparison between the percentages of returns and allowances in these two years.

Returns and Allowances

Percentage of Gross Sales	All Firms reporting 1920	Firms reporting in both years 1919	Firms reporting in both years 1920
Less than 1.0%	54	22	15
1.0–1.4	48	20	19
1.5–1.9	45	16	15
2.0–2.4	41	13	14
2.5–2.9	28	7	9
3.0 and over	43	9	15
Total number of firms	259	87	87

SALES PER SALESMAN

Information was obtained regarding the number of salesmen employed by each firm in 1920. These figures have been used to determine the average annual sales per salesman. As in other instances where similar tests have been made, this comparison indicates that the salesforce expense varied inversely with the sales per salesman. In a number of cases that have come up during the last few years, an investigation has indicated that high salesforce expense is more commonly due to abnormally low sales per salesman than to any other reason. These low sales may result from poor routing of salesmen or from calling upon customers too frequently, or from various other causes.

Average Annual Sales per Salesman in 1920

Annual Sales per Salesman	Number of Firms	Salesforce Expense (% of Net Sales)
Less than $100,000	22	3.5%
$100,000–149,000	80	2.7
$150,000–199,000	69	2.1
$200,000–249,000	51	1.7
$250,000 and over	47	1.2

The common figure for average annual sales per salesman in each of the Federal Reserve districts was as follows:

Average Annual Sales per Salesman in 1920 by Federal Reserve Districts

District	Annual Sales per Salesman	District	Annual Sales per Salesman
Boston	$186,000	Chicago	$179,000
New York	$180,000	St. Louis	$142,000
Philadelphia	$175,000	Minneapolis	$148,000
Cleveland	$210,000	Kansas City	$144,000
Richmond	$196,000	Dallas	$183,000
Atlanta	$186,000	San Francisco	$186,000

This indicates a variation of average annual sales per salesman from $142,000 in the St. Louis district and $144,000 in the Kansas City district to $210,000 in the Cleveland district. It is to be noted that the St. Louis and Kansas City districts showed the highest common figure for salesforce expense and that the Cleveland district showed the lowest common figure for salesforce expense.

The wholesale grocers located in cities with a population less than 100,000 had a common figure for average annual sales per salesman of $182,000 in 1920; the common figure for salesforce expense of this group was 2%. The wholesale grocers in cities with a population from 100,000 to 749,000 had a common figure for average annual sales per salesman of $177,000 and for salesforce expense of 2.2%. In cities with a population exceeding 750,000 the wholesale grocers showed a common figure for average annual sales per salesman less than two-thirds as large as was shown by the wholesale grocers in the other cities. The common figure for average annual sales per salesman in these largest cities was $103,000 and for salesforce expense 3% of net sales.

When the wholesale grocers' reports were grouped according to the volume of sales in 1920, the correlation between the average annual sales per salesman and total salesforce expense was not quite as close as in the previous classifications. It is to be noted, nevertheless, that the firms with the highest total salesforce expense had the lowest average annual sales per salesman — $131,000.

Average Annual Sales per Salesman in 1920 According to Volume of Sales

Volume of Net Sales per Firm	Annual Sales per Salesman	Salesforce Expense (% of Net Sales)
Less than $500,000	$131,000	2.4%
$500,000–999,000	$171,000	2.1
$1,000,000–1,499,000	$180,000	2.0
$1,500,000–1,999,000	$199,000	2.0
$2,000,000 and over	$182,000	2.1

FINANCIAL FIGURES

In the bulletin on operating expenses in 1919, the Bureau began a series of comparisons of several ratios determined from the financial statements submitted by wholesale grocers. These comparisons have been continued for 1920.

The following table shows the ratio of current assets to current liabilities, with the number of firms in each ratio group. This table indicates, for example, that for ninety-seven firms the current assets were from 2 to 2.9 times the current liabilities. In order to make comparisons between 1919 and 1920, figures also are included in the table for the firms from which comparable reports were received for both years. These figures indicate that the ratio of current assets to current liabilities on December 31, 1920, generally was higher than at the end of the previous year. Obviously this suggests healthy progress in readjustment to new conditions in a period of depression.

Ratio of Current Assets to Current Liabilities at End of Year

Ratio	All Firms reporting 1920	Firms reporting in both years 1919	Firms reporting in both years 1920
Less than 1.0	1	1	0
1.0–1.9	86	30	24
2.0–2.9	97	32	31
3.0–3.9	41	9	13
4.0–4.9	10	6	2
5.0–5.9	12	4	2
6.0 and over	53	7	17
Total number of firms	300	89	89

In the following table is shown the ratio of accounts and notes receivable to average monthly sales. For one hundred twenty-seven firms, for example, the accounts and notes

receivable at the end of the year were between 0.5 and 0.9 times the average monthly sales. A comparison of the figures for the firms that furnished reports for both years indicates that the accounts and notes receivable December 31, 1920, generally were less in proportion to the average monthly sales than at the end of the previous year. This is another favorable indication of progress in the readjustment of credit conditions.

Ratio of Accounts and Notes Receivable at End of Year to Average Monthly Sales

Ratio	All Firms reporting 1920	Firms reporting in both years 1919	Firms reporting in both years 1920
Less than 0.5	21	2	7
0.5–0.9	127	18	42
1.0–1.4	107	48	33
1.5–1.9	28	13	3
2.0 and over	17	8	4
Total number of firms	300	89	89

The ratio of accounts and notes payable (for merchandise) at the end of the year to the average monthly purchases is shown in the following table. For forty-four firms, for example, the accounts and notes payable (for merchandise) at the end of the year were more than twice the average monthly purchases during the year. A comparison of the figures for firms which reported both in 1919 and 1920 indicates that at the end of 1920 the ratio of accounts and notes payable to average monthly purchases generally was much less than at the end of 1919.

Ratio of Accounts and Notes Payable (for Merchandise) at End of Year to Average Monthly Purchases

Ratio	All Firms reporting 1920	Firms reporting in both years 1919	Firms reporting in both years 1920
Less than 0.5	69	6	33
0.5–0.9	65	14	19
1.0–1.4	63	16	11
1.5–1.9	59	28	14
2.0 and over	44	25	12
Total number of firms	300	89	89

Despite the losses that the wholesale grocers suffered during 1920 as a result of the fall in prices, these figures indicate that by the end of the year much progress had been made in readjustment to new conditions, and these various credit ratios suggest that basically the credit conditions were more healthy at the end of 1920 than at the end of 1919.

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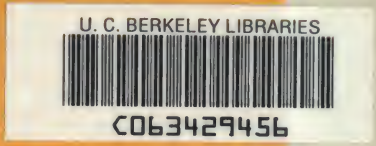

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